

## **REMARKS**

### **I. Status of Claims**

Prior to entry of this paper, **Claims 12-18** were pending. Claims 12-18 were rejected, Claims 1-11 and 19-29 were withdrawn from consideration. In this paper, Claims 12 and 13 are amended; no claims are cancelled; and no claims are added. Claims 12-18 are currently pending. No new matter is added by way of this amendment. For at least the following reasons, Applicant's representative respectfully submits that each of the presently pending claims is in condition for allowance.

### **II. Withdrawal of Finality of previous Office Action**

The reconsideration and withdrawal of the finality of the previous Office Action, mailed November 28, 2007, is hereby acknowledged and appreciated.

### **III. Request to Reconsider and Withdraw Finality of Current Office Action**

The following factual observations are made with regard to this application:

1. The current Office Action, issued February 21, 2008, is Final, as is indicated on both the Office Action Summary at 2a, as well as in the "Conclusion" section of the Office Action on page 21.
2. In this current Office Action at page 2, section 2, indication is given of the withdrawal of the finality of the previous Office Action that was mailed on November 28, 2007.
3. Also in section 2 on page 2 of the current Office Action, remarks and arguments that were made in the Applicant's previous response, filed January 28, 2008, are not answered, whereby the Applicant is instead referred to "the response to the arguments of the office action date 11/28/07, 8/14/2007, etc. of the prosecution history".
4. In the current Office Action, rounds of rejection for Claims 12, 13, and 18, including Gai-Cisco in view of Oran-Cisco under 35 U.S.C. §103(a), are repeated from the previous Office Action, including the identical citations in these references that were made in the previous Office Action of November 28, 2007.

5. The current Office Action, on pages 2-6 and 11-21, also introduces new grounds of rejection for at least Claims 12, 13, and 18. These rejections include new references, including Sawyer, Lu, Pham, and Short, that had not previously been made of record, nor has then been relied upon in rejections in previous Office Actions, including that which was mailed November 28, 2007.

6. Since at least the previous Office Action of November 28, 2007, no Information Disclosure Statements have been filed in this application.

In the context of such facts, the MPEP at least states the following:

**706.07(d)Final Rejection, Withdrawal of, Premature [R-6]**

Once the finality of the Office action has been withdrawn, the next Office action may be made final if the conditions set forth in MPEP § 706.07(a) are met.

**706.07(a)Final Rejection, When Proper on Second Action [R-6]**

Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims, nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

After reviewing the prosecution history of this application, it is respectfully requested that the finality of the current Office Action be withdrawn. Particularly, this finality is respectfully requested to be withdrawn because the Office Action issued February 21, 2008, includes new ground(s) of rejection that were neither necessitated by the applicant's amendment, nor were they based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p). As noted above, rejections based on references such as Sawyer, clearly comprise the introduction of new grounds of rejection.

With regards to the first exception under MPEP 706.07(a), the fact that these new grounds, such as those pertaining to Sawyer, are not necessitated by the applicant's amendment of January 28, 2008, is substantiated by multiple aspects of the current Office Action. First, the repetition of the exact same grounds of rejection for the pending claims, Claims 12-18, demonstrates that, even without these new grounds of rejection, no pending claim would have otherwise been left without a cited ground of rejection. As such, the new grounds of rejection do not provide rejection for claims that – amended or otherwise – would not have been rejected under the previously presented grounds

of rejection. Second, the current Office Action reference does not provide new responses to the new arguments that were presented in the Applicant's previous response regarding the claim amendments, which indicates that the Applicant's previous amendments did even not necessitate new or additional explanation of the references, much less the new grounds of rejection. It is respectfully submitted that these two criteria - the repetition of previous rejections and the reliance on prior responses to arguments - cannot logically be valid if the new grounds of rejection were, in fact, necessitated by the applicant's previous amendment. As such, it is respectfully submitted that the first exception criterion of MPEP 706.07(a) was not met with regards to the finality of the current Office Action.

With regards to the second exception criterion of MPEP 706.07(a), the lack of information disclosure statements clearly evidences that the new grounds of rejection, such as Sawyer, are not based on a submission of the new grounds of rejection in an Information Disclosure Statement. As such, it is respectfully submitted that the second exception criterion of MPEP 706.07(a) was not met with regards to the finality of the current Office Action.

To reiterate, as noted in MPEP 706.07(d), the current Office Action of February 21, 2008 may be made final if the conditions set forth in MPEP § 706.07(a) are met. As noted in the preceding paragraphs, such conditions are clearly not met. Accordingly, it is respectfully submitted that the finality indicated in the current Office Action is premature, and as such, withdrawal of this indicated finality is respectfully requested.

### **III. Claim Rejections - 35 U.S.C. § 102**

**Claims 12, 13 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by Lu et al. US Patent No. 7,281,036 (hereafter Lu).

With this paper, **Claims 12 and 13** have been amended to further clarify the difference, and thus patentability, between the previously applied prior art and inventions respectively claimed therein. Specifically, the operations of the network device have clarified with respect to the receipt of a broadcast frame. This clarification further substantiates the nature of the broadcast frame from the management node as being that of a "*force request*". Support for this amendment can be found

throughout the application, as originally filed, and particularly in paragraph [0016] of the specification.

**Claim 12**, as amended, is reproduced for convenience as follows:

*12. A system comprising:*

*a network element including a direct internet protocol module, the network element changing its current protocol address to an IP address specified in a broadcast frame, wherein the change is made after receiving the broadcast frame; and*

*a management node residing at a same physical subnet as the network element, the management node comprising computer executable instructions that when executed perform actions including:*

*forcing the network element to have an unused IP address within an access range of the management node by:*

*(i) identifying the unused IP address within the access range of the management node; and*

*(ii) broadcasting the broadcast frame from the management node as a force request including the unused IP address to the direct internet protocol module without reconfiguring the management node, wherein the broadcast frame from the management node to the direct internet protocol module is constructed to change the IP address of the network element from its current protocol address to the unused IP address.*

After carefully and thoroughly reviewing the most recent Office Action, it is respectfully submitted that the prior art applied therein neither anticipates nor renders obvious the limitations reproduced above, including when such limitations are collectively considered as a whole.

On the whole, it is respectfully submitted that this prior art fails to at least anticipate or render obvious the limitations of Claim 12 that pertain to a “*force request*” that is sent from a management node to a network device. As is further explained herein, the details, features, and implementation of this “*force request*” is not taught or suggested by the prior art of record, including as it is further claimed in at least Claim 12.

In response to the discussion of the applied references herein, if any of the current rejections are maintained in response to this application, it is respectfully requested that such rejections be explained with respect to at least the limitations related to a *“force request”*. In regards to future Office Actions, assistance is also requested with regards to better clarifying the manner in which the references are being interpreted and applied. The citation of references by column or page, absent lines or event element numbers (see lines 1-8 of page 3 of the current Office Action, for example), does not clearly explain the pertinence of such references, including as is practicable, as is further discussed in 37 CFR 1.104(c)(2).

With regards to the first reference applied under 35 U.S.C. §102(e), Lu discloses a network device that determines a network address for itself, and then assumes this address for itself (col. 7, lines 26-32 of Lu). To reiterate, in these steps (i) and (ii) of Lu, the appliance (110) initiates, organizes, and controls the determination of its own network address. When an external device, a central appliance server (150) is formally addressed by the appliance (110), it is at the request and access of the appliance (110), not that of the central server (col. 7, lines 35-44 of Lu). Lu also discloses a situation where, during attempts to locate an unused network address, the appliance (110) performs a corrective action for an address that is tested but already assigned (col. 16, lines 27-38). However, this routine involves restoring a previously assigned address, ip\_Y, to its assigned device, which involves neither an unused address, nor an address that is received and can be assumed by the appliance (110) of Lu (col. 16, lines 27-30).

In contrast, **Claim 12**, as reproduced above, comprises two devices – a *“management node”* and a *“network element”*, wherein the former device forces the latter to have a specific IP address by sending an *“unused IP address”* to the latter, wherein the *“network element”* changes its IP address from a *“its current protocol address”* to the *“unused IP address”* from the management node *“after receiving the broadcast frame”*. As noted above, the same device in Lu, appliance (110), sends a message with a candidate unused IP address (col. 15, lines 61-63) and assumes the unused IP address after a variety of checks on the potentially unused address (col. 24, lines 58-60). Such an arrangement does not teach or suggest a system comprising a network element and a management node as claimed, much less *“a management node”* that performs actions including *“broadcasting the broadcast frame from the management node as a force request including the unused IP address”*.

*to the direct internet protocol module*” as is further claimed in Claim 12. In such an arrangement, the appliance (110) of Lu does not teach or suggest the claimed “*network element*” so far as it first pretends to have the candidate unused IP address (col. 15, lines 61-63), the use of which by the appliance (110) is thus not “*after receiving the broadcast frame*” as claimed in Claim 12. The appliance (110) of Lu does not teach or suggest the “*management node*”, as claimed in Claim 12, so far as it pretends to have a plurality of difference IP addresses, and this does not operate “*without reconfiguring the management node*”. The polling of such candidate unused IP addresses also does not teach or suggest the claimed “*management node*” so far as the ICMP and ARP requests in Lu (col. 15, lines 61-63; col. 16, lines 13-25) wait for ARP requests or ARP replies (col. 16, lines 4-9 and 15-21), which indicates that these requests from the appliance (110) are not “*constructed to change the IP address of the network element from its current protocol address to the unused IP address*” as further claimed in Claim 12. The teachings of Lu regarding the IP conflict (col. 16, lines 27 – col. 17, line 5) involve an IP address “has already been assigned to another machine”, which is not equivalent to or suggestive of the “*identifying the unused IP address*” as further claimed in at least Claim 12. Finally, the permanent IP address received by the appliance (110) is received in a frame sent to the appliance (110) by the central management server after the appliance (110) has contacted the server (150), and thus not at the forcing or request of the server (150)(col. 25, lines 25-37), which fails to teach or suggest the forcing and sending of this permanent address “*from the management node as a force request*” as is further claimed in at least Claim 12. Forcing a change in address, as claimed, is simply not equivalent in scope to self-assuming or requesting the receipt of an address as is performed in Lu, at least so far as the element that receives a forcing broadcast frame does not have control or initiation of such a resulting change. The permanent IP address from the server (150) is also in the subnet of the appliance (110) and not the server (150)(Figure 1 of Lu and col. 25, lines 57-62), which fails to teach or suggest “*unused IP address within the access range of the management node*” as further claimed in at least Claim 12. Accordingly, it is respectfully submitted that Lu does not teach or suggest all limitations of Claim 12, including when such limitations are collectively considered as a whole. As such withdrawal of the previous rejection of this claim under 35 U.S.C. §102(e) is respectfully requested.

With regards to the two “Notes” provided in the most recent Office Action, it is respectfully submitted that the amendment to Claim 12 clarifies that the features following the “wherein” terms in the claims are required to be part of the claimed “system”, thus obviating the discussion of MPEP 2111 with regards to these features. It is also respectfully submitted that the limitations of at least Claims 12-18 set forth the claimed invention in a manner that, even when given its broadest reasonable interpretation in light of the specification, it is not anticipated nor rendered obvious by the prior art of record – including Lu. As such, it is respectfully submitted that the two issues noted in these “Notes” have been herein addressed and obviated.

For **Claim 13**, as is similarly set forth for Claim 12, the teachings of Lu involve a plurality of different frames before a permanent IP address is sent (col. 7, lines 26-40 of Lu), which fails to at least suggest “*and wherein broadcasting the broadcast frame permits connection between the management node and the network device using TCP/IP after the exchange of only three Ethernet frames*” as is further claimed in at least Claim 13. Accordingly withdrawal of the previous rejection under 35 U.S.C. §102(e) is also respectfully requested.

So far as **Claim 18** depends on Claim 12, it is respectfully submitted that the remarks presented herein regarding Lu and Claim 12 also apply to the limitations of Claim 18. Accordingly, for at least the same reasons, withdrawal of this rejection under 35 U.S.C. §102(e) is respectfully requested.

**Claims 12, 13 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by Sawyer et al. US Patent No. 6,466,986 (hereafter Sawyer).

Similar to Lu, it is respectfully submitted that Sawyer fails to anticipate or render obvious at least the limitations of Claim 12 that pertain to a “*force request*” that is sent from a management node to a network device.

Sawyer discloses a system for associating a MAC address of a client device with the IP address of a client device (col. 1, lines 38-52). Regarding IP addresses, the system of Sawyer is based on the DHCP protocol (col. 2, lines 5-7). As noted in previous responses with regards to the teachings of Gai-Cisco, such a protocol comprises a user device (120) initiating the process of obtaining an IP address from a DHCP server (140) (col. 2, lines 34-37; col. 3, lines 28-30). After

this initiation by the user device (120), the server responds with an offered IP address (col. 4, lines 23-24), upon which the client device responds with a request for the offered address (col. 4, lines 38-40), and which is then responded to by the server (140) with an acknowledgement that is sent to the client (120) (col. 4, lines 56-60). The teachings of Sawyer, with regard to this protocol, pertain to tracking the parity between a MAC address of a device and the IP address that is assigned to such as device to ensure secure routing of future messages between the user device (120) and the internet (via a router 150) by checking and enforcing the tracked parity (col. 5, lines 25-59 of Sawyer).

As stated before with respect to Gai-Cisco, at least the “*force request*” aspect of the invention claimed in Claim 12 is not taught or suggested by the DHCP protocol. For Sawyer, the user device (120) that initiates (col. 3, lines 28-30) and requests an IP address (col. 4, lines 38-40) is the same device that selects and uses a particular address (col. 4, lines 45-51; col. 5, lines 35-59). Such an arrangement does not teach or suggest a system comprising a network element and a management node as claimed, much less *a management node*” that performs actions including “*broadcasting the broadcast frame from the management node as a force request*” as is further claimed in Claim 12. The difference between “*forcing*” and “*force*”, as claimed in at least Claim 12, is clearly demonstrated by the “provisional” marking of the IP address table at the server (140) (col. 4, lines 20-22 in Sawyer), as well as the fact that the user device (120) – not a server – selects a DHCP server and the address offered by the DHCP server (col. 4, lines 45-51). The DHCP server (140) of Sawyer does not teach or suggest the claimed “*management node*” so far as the selection of the server (140), and corresponding address, is done by the user device (120) in Sawyer (col. 5, lines 45-51) and thus these offers from the server (140) are not “*constructed to change the IP address of the network element from its current protocol address to the unused IP address*” as further claimed in Claim 12. The wait for the response at the server (120) for the request (REQUEST) from the user device, upon which the table at the server (140) is then changed (col. 4, lines 54-56 of Sawyer), does not teach or suggest “*wherein the broadcast frame from the management node to the direct internet protocol module is constructed to change the IP address of the network element from its current protocol address to the unused IP address*” as further claimed in Claim 12. In fact, it is respectfully submitted that, prior to the DHCP-based interaction between the user device (120) and the server (140), the user device (120) does not have an IP address to access the internet backbone



(155) in Sawyer (col. 2, lines 34-35), which does not teach or suggest “*the network element changing its current protocol address to an IP address specified in a broadcast frame*”.

Accordingly, for at least these reasons, it is respectfully submitted that Sawyer does not teach or suggest all limitations of Claim 12, including when such limitations are collectively considered as a whole. As such withdrawal of the previous rejection of this claim under 35 U.S.C. §102(e) is respectfully requested.

Similarly, for **Claim 13**, the teachings of Sawyer involve at least four (discover, offer, request, acknowledgement) different frames before an IP address is established for use by the user device (120) (col. 4, lines 18-24 and 54-60 of Sawyer), which fails to at least suggest “*and wherein broadcasting the broadcast frame permits connection between the management node and the network device using TCP/IP after the exchange of only three Ethernet frames*” as is further claimed in at least Claim 13. Accordingly withdrawal of the previous rejection under 35 U.S.C. §102(e) is also respectfully requested.

So far as **Claim 18** depends on Claim 12, it is respectfully submitted that the remarks presented herein regarding Sawyer and Claim 12 also apply to the limitations of Claim 18. Accordingly, for at least the same reasons, withdrawal of this rejection under 35 U.S.C. §102(e) is respectfully requested.

**Claims 12, 13 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by Pham et al. US Patent No. 6,629,145 (hereafter Pham).

Similar to Lu, it is respectfully submitted that Pham fails to anticipate or render obvious at least the limitations of Claim 12 that pertain to a “*force request*” that is sent from a management node to a network device.

Pham discloses a system that enables a server device to configure itself with an initial set of network values, and then interact with a second system to determine a second set of network values (abstract, col. 3, lines 1-6). The first phase comprises the assumption of a default IP address by the server device (12)(col. 6, lines 62-66). This phase also involves IP address conflict resolution, which the server (12) performs for itself, and which concludes in the selection of an unused address by the server (12) as a second IP address, an alias IP address (col. 8, lines 46-52 and col. 9, lines 19-

23 of Pham). The second phase of configuration comprises the server device setting its own IP address for a given network (col. 13, lines 24-27) and then offers this IP address to a configuration control client (22,100) as a selectable option (col. 13, lines 27-31).

In contrast with the claimed invention of at least Claim 12, these teachings of Pham reflect the similar deficiencies of Lu with regards to the “*force request*” as claimed. In both phases of operation of the system of Pham, the same system (12) that determines an IP address is the system (12) that assumes the IP address (col. 6, lines 62-67 and col. 13, lines 24-27 of Pham), which fails to teach or suggest “*a management node*” that performs actions including “*broadcasting the broadcast frame from the management node as a force request including the unused IP address to the direct internet protocol module*” as is further claimed in Claim 12. In such an arrangement, the server device (12), which also runs the configure management application (56) of Pham, does not teach or suggest the claimed “network element” so far as it sets its own address before providing the address to a control application (100) on a separate device (22) (col. 13, lines 26-27), which is not “*after receiving the broadcast frame*” as claimed in Claim 12. The server (12) of Lu does not teach or suggest the “*management node*”, as claimed in Claim 12 so far as it accepts two different sets of initial and secondary sets of network values (Abstract of Pham), which does not comprise operating “*without reconfiguring the management node*”. The polling of unused IP addresses by the server (12), rather than the control system (22), fails to teach or suggest the same device performing actions of both “*forcing the network element to have an unused IP address*” and “*identifying the unused IP address within the access range of the management node*” as is further claimed for the “*management node*”, not the network element of Claim 12. The assumption and use of a previously configured value by the server (12)(col. 6, lines 63-67 of Pham) also fails to teach or suggest “*identifying the unused IP address within the access range of the management node*” for the server (12) itself, much less as is further claimed for the “*management node*” of Claim 12. The response from the second device (22), which runs a configuration control client, comprises acknowledging the settings determined by the server (12) for itself, which fails to teach or suggest the forcing and sending of this configuration involving an address “*from the management node as a force request*” as is further claimed in at least Claim 12. To reiterate, forcing a change in address, as claimed, is simply not equivalent in scope to self-assuming and then obtaining approval or an indication of

conflict, as is performed in Lu, at least so far as the device that receives the forcing broadcast frame does not have overall control or initiation of such a resulting change. In fact, Pham particular notes that the server (12) forces a configuration control client (100 in 22) to accept an address setting that it has determined for itself (col. 13, lines 24-27 and 53-58), which clearly differs from the management node *“forcing the network element to have an unused IP address”* as is further claimed in Claim 12. Accordingly, it is respectfully submitted that Lu does not teach or suggest all limitations of Claim 12, including when such limitations are collectively considered as a whole. As such withdrawal of the previous rejection of this claim under 35 U.S.C. §102(e) is respectfully requested.

For **Claim 13**, the teachings of Pham involve a plurality of messages sent and received before an IP address is established for between the server (12) and the control device (22) (col. 7, lines 45-48, and col. 10, lines 14-17, and col. 12, lines 21-25, and col. 13, lines 29-31 of Pham) which fails to at least suggest *“and wherein broadcasting the broadcast frame permits connection between the management node and the network device using TCP/IP after the exchange of only three Ethernet frames”* as is further claimed in at least Claim 13. Accordingly withdrawal of the previous rejection under 35 U.S.C. §102(e) is also respectfully requested.

So far as **Claim 18** depends on Claim 12, it is respectfully submitted that the remarks presented herein regarding Pham and Claim 12 also apply to the limitations of Claim 18. Accordingly, for at least the same reasons, withdrawal of this rejection under 35 U.S.C. §102(e) is respectfully requested.

**Claims 12, 13 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by Short et al. US Patent Publication No. 2005/0188092 (hereafter Short).

Similar to Lu, Sawyer, and Pham, it is respectfully submitted that Short fails to anticipate or render obvious at least the limitations of Claim 12 that pertain to a *“force request”* that is sent from a management node to a network device.

Short discloses an intermediate device (router 10) that is able to variably connect a host device (12) with a network (14)(para. [0044-0046]). The router (10) connects, in separate manners, with both the host device (12) and the network (14), and enables the relative communication

therebetween by translating packets between the two components (para. 0104, 0109, 0119). The router (10) then transparently represents the (12) to the network (14) and vice versa (para. 0057).

While the interpretation of reference of Short is unclear from the Office Action, since entire pages (4,7 in Short) are cited in the Office Action, it is yet respectfully submitted that no combination of the three main components discussed in Short (10,12,14), teach or suggest the limitations of Claim 12, including those particularly related to the “*force request*” as claimed. For example, the host device (12) utilizes a permanent internet address (para. 0048), which fails to teach or suggest “*the network element changing its current protocol address to an IP address specified in a broadcast frame*”, much less “*forcing the network element to have an unused IP address within an access range of the management node*”. To establish connection between the router (10) and the network (14) or router (26), the router (10) of Short implements the DHCP protocol (para. 0121), elects its own IP address (para. 0125-0126), or manually receives the configuration information (para. 0128 of Short). The use of the DHCP protocol, as well as self-configuration by the same device that ultimately employs a determined IP address, are discussed above, in detail, with regards to the teachings of Lu, Sawyer, and Pham. It is respectfully submitted that the teaching of Short do not teach or suggest the limitations of Claim 12 for at least similar reasons, particularly including that in such an arrangement, the router (10) of Short does not change “*its current protocol address to an IP address specified in a broadcast frame, wherein the change is made after receiving the broadcast frame*”, nor is the router equivalent to or suggestive of a “*management node*” capable of “*forcing the network element to have an unused IP address within an access range of the management node*” and “*broadcasting the broadcast frame from the management node as a force request including the unused IP address to the direct internet protocol module without reconfiguring the management node, wherein the broadcast frame from the management node to the direct internet protocol module is constructed to change the IP address of the network element from its current protocol address to the unused IP address*” as is further claimed in Claim 12. Manual entry of configuration information (para. 0128 of Short), clearly does not cure this deficiency. Accordingly, withdrawal of the rejections of amended Claim 12, as well as those of Claims 13 and 18, is respectfully requested, at least in light of the reasoning further discussed above with regards to the references of Lu, Sawyer, and Pham. Again, it is respectfully submitted that the limitations of

these claims are neither anticipated, nor rendered obvious by the reference of Short, including when the effect of these limitations is considered as a whole.

#### **IV. Claim Rejections - 35 U.S.C. § 103**

**Claims 12, 13 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gai et al., US Patent No. 6,697,360, Cisco (hereafter Gai-Cisco) in view of Oran et al., US Patent No. 6,240,084, Cisco (hereafter Oran-Cisco).

As noted above, and similar to Sawyer, it is respectfully submitted that Gai-Cisco, even in combination with Oran-Cisco fails to anticipate or render obvious at least the limitations of Claim 12 that pertain to a “*force request*” that is sent from a management node to a network device.

As was stated previously, the teachings of Gai-Cisco specifically center on the ability of an intermediate device, as an extension of the DHCP protocol, to request and receive IP addresses for itself (col. 5, lines 34-40 of Gai-Cisco). Alternately stated, the intermediate device, the device to which an IP address is given, is the same device that first requests the IP address. For example, the DHCPDISCOVER message from an intermediate device of a switch 214, is set to “request”, as part of the initial step of acquiring a stable IP address (col. 8, lines 18-34). The response to this initial DHCPDISCOVER message from a server, such a 220 or 222, is not indicated as a request, but rather a “reply” as part of a DHCPOFFER message (col. 9, lines 21-23 and 28-36). The switch 214 then proceeds to select at least one of the received IP addresses that it initially requested (col. 10, lines 19-22). This pattern of a switch request, followed by a server reply, is repeated throughout the communication arrangement of Gai-Cisco (see, for example, switch requests in col. 11, lines 26-30 and col. 13, lines 16-33).

However, an “offer” or something “proffered” is not the same as a request, nor is it a representation of force. Such a difference is even recognized in the language of Gai-Cisco cited above. In fact, the messaging noted in Gai-Cisco to be initiated from a server, such as 220, does not contain an unused IP address, but rather, is simply a ROUTER RECONFIG message. This message, even in such circumstances, still results in the switch – not the server – initiating and requesting configuration of a new connection (col. 16, lines 34-42). Again, the end user of the IP address, the switch, is the source of these requests in Gai-Cisco, not the server.

In contrast, the claimed invention, as represented in amended Claim 12, clearly recites that the unused IP address is issued as part of a force request from a management node, at least by way of the limitation *“broadcasting the broadcast frame from the management node as a force request including the unused IP address”*. The nature of the unused IP address, received and used by a second device (i.e., the *“network element”*), is further represented in the claim at least by the limitations *“from the management node”* and *“the network element changing its current protocol address to an IP address specified in a broadcast frame”*. As further detailed above, this relationship is different than that expressed in the DHCP-based relationship of the server and switch in Gai-Cisco, noting that the “server” of Gai-Cisco appears to have been equated in the most recent Office Action to the claimed *“management node”*, while the “switch” appears to have been equated to the claimed *“network element”*. Further, the ROUTER RECONFIG is addressed to the interface being affected (col. 16, lines 37-42 of Gai-Cisco), but does not include a new IP address, which fails to teach or suggest *“broadcasting a broadcast frame from the management node as a force request including the unused IP address”*. The addition and use of a second IP address to the server (col. 16, lines 54-57 in Gai-Cisco) fails to teach or suggest *“the network element changing its current protocol address to an IP address specified in a broadcast frame”*. The fact that this second IP address is added after a message from the switch to the server (col. 16, lines 47-49 in Gai-Cisco) also fails to teach or suggest *“the broadcast frame from the management node to the direct internet protocol module is constructed to change the IP address of the network element from its current protocol address to the unused IP address”* as is further claimed in Claim 12. It is respectfully submitted that such differences underscore at least one distinction, and thus grounds for patentability, between the applied “server” and “switch” of Gai-Cisco and the *“management node”* and the *“network element”* as further claimed in at least Claim 12.

It is respectfully submitted that Oran-Cisco does not cure the above noted deficiency in the teachings of Gai-Cisco. Oran-Cisco discloses a PC based server platform that includes a bus that connects router cards (14) to telephony endpoint cards (16) (col. 2, lines 52-64). An IP-based wide area network is mentioned in the teachings, but not in terms of the transfer of an unused IP address, including such as represented in the amended limitation of Claim 12 discussed above (see col. 2, lines 59-64 of Oran-Cisco). In fact, a second network device, aside from the server of Figure 2, is

not even shown in the Figures of Oran-Cisco, much less discussed in the detailed description in a manner that would teach or suggest the above noted limitation of amended Claim 12. For at least this reason, it is respectfully submitted that Oran-Cisco, alone or even in further combination with Gai-Cisco, does not teach or suggest this limitation.

For at least the reasons presented herein, it is respectfully submitted that, as amended, Claim 12, as a whole, is not taught or suggested by the combined teachings of Gai-Cisco in view of Oran-Cisco. Accordingly, withdrawal of the rejection of this claim under 35 U.S.C. §103(a) is respectfully requested.

Similarly, for **Claim 13**, the teachings of Gai-Cisco involve at least four (discover, offer, request, acknowledgement) different frames before an IP address is established for use by the switch (Figure 3 of Sawyer) or even more frames if a change is made between subnets (Figure 5 of Gai-Cisco), which fails to at least suggest “*and wherein broadcasting the broadcast frame permits connection between the management node and the network device using TCP/IP after the exchange of only three Ethernet frames*” as is further claimed in at least Claim 13. Accordingly withdrawal of the previous rejection under 35 U.S.C. §103(a) is also respectfully requested.

So far as Claim 18 depends from Claim 12, it is respectfully submitted that these claims incorporate the above noted limitation of Claim 12, and are not taught or suggested by the combination of Gai-Cisco and Oran-Cisco for at least the same reasons presented herein. Accordingly, withdrawal of this rejection under 35 U.S.C. §103(a) is also respectfully requested.

**Claims 14 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu in view of Ullmann et al., IBM, US Patent Publication No. 2002/0172222 (hereafter Ullmann-IBM). **Claims 14 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gai-Cisco and Oran-Cisco in view of Ullmann et al., IBM, US Patent Publication No. 2002/0172222 (hereafter Ullmann-IBM). **Claims 14 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer in view of Ullmann et al., IBM, US Patent Publication 2002/0172222 (hereafter Ullmann-IBM). **Claims 14 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pham in view of Ullmann et al., IBM, US Patent Publication 2002/0172222 (hereafter Ullmann-IBM).

**Claims 14 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Short in view of Ullmann et al., IBM, US Patent Publication 2002/0172222 (hereafter Ullmann-IBM).

However, so far as Claims 14 and 17 depend from Claim 12, it is respectfully submitted that these claims incorporate the above noted limitation of Claim 12, and are not taught or suggested by Lu, Short, Sawyer, Pham or the combination of Gai-Cisco and Oran-Cisco for at least the same reasons. It is respectfully submitted that the IP-related teachings of the network of Ullmann-IBM, mentioned for example in paragraphs [0064] and [0093], do not cure the above noted deficiencies. Accordingly, withdrawal of these rejections under 35 U.S.C. §103(a) is also respectfully requested.

**Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu in view of Fuoco et al., US Patent No. 6,594,713, Texas Instruments (hereafter Fuoco-Texas). **Claims 15 and 16** are also rejected under 35 U.S.C. 103(a) as being unpatentable over Gai-Cisco and Oran-Cisco in view of Fuoco et al., US Patent No. 6,594,713, Texas Instruments (hereafter Fuoco-Texas). **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer in view of Fuoco et al., US Patent No. 6,594,713, Texas Instruments (hereafter Fuoco-Texas). **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pham in view of Fuoco et al., US Patent No. 6,594,713, Texas Instruments (hereafter Fuoco-Texas). **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Short in view of Fuoco et al., US Patent No. 6,594,713, Texas Instruments (hereafter Fuoco-Texas).

However, so far as **Claims 15 and 16** depend directly or indirectly from Claim 12, it is respectfully submitted that these claims incorporate the above noted limitation of Claim 12, and are not taught or suggested by Lu, Pham, Sawyer, Short, or the combination of Gai-Cisco and Oran-Cisco for at least the same reasons. It is respectfully submitted that the external port interface related teachings of Fuoco-Texas, mentioned for example in col. 8, lines 33-39 do not cure the deficiencies of the Lu, Pham, Sawyer, Short, or the combination of Gai-Cisco and Oran-Cisco as is further presented herein. Accordingly, withdrawal of these rejections under 35 U.S.C. §103(a) is also respectfully requested.

With particular regard to **Claim 16**, it is also respectfully submitted that the notions of “disabled” and “time after power up”, as further claimed in Claim 16, are not taught or suggested by



Fuoco-Texas. The Office Action, in section 13 on page 6, section 22 on page 10, section 22 on page 10, section 22 on page 10, and section 22 on page 10, indicates that Gai-Cisco and Oran-Cisco do not teach such limitations. These references to Gai-Cisco and Oran-Cisco in sections of the Office Action that do not involve these references, such as those that apply to Sawyer, Short, Pham, and Lu, are interpreted herein to be a typographical error, and also intend to indicate that these four references do not teach or suggest the limitations of Claims 15 and 16 either.

However, “forced”, as suggested by Gai-Cisco in column 15, line 55, and “*disabled*” as claimed in Claim 16, are clearly different concepts, at least so far as they initiate from and pertain to different ends of a communication system. Fuoco-Texas, however, in the cited figures of 1, 3, and 10, and the passage cited of Figure 8 does not mention these concepts of Claim 16 either. Clearly, a conclusion of obviousness cannot be reached in view of such silence, including that of the cited portions of Fuoco-Texas. Withdrawal of the previous rejections based on Fuoco and Claim 16 is thus respectfully requested.

In fact, it is respectfully submitted that amending such a feature as claimed in Claim 16 to the teachings of Gai-Cisco would render the system of Gai-Cisco inoperable for its intended purpose. Namely, the ability to automatically modify subnets would be expressly inhibited by such an added feature, since the ability to reconfigure would be disabled after the claimed “*predetermined amount of time after power up*” of Claim 16 (see col. 16, lines 28-42 of Gai-Cisco). Again, the concept of “*predetermined time after power up*”, as further claimed in Claim 16, is not mentioned, much less suggested by the cited teachings of Gai-Cisco, Oran-Cisco, and Fuoco-Texas. It is respectfully submitted that this same inconsistency exists in a similar form between Fuoco-Texas and the other newly-cited references of Lu, Sawyer, Pham, and particularly Short.

On these additional grounds of failure to at least suggest the limitations of Claim 16, as well as the incompatibility of any such combination, it is respectfully requested that the rejections of Claim 16 be withdrawn as well.

**CONCLUSION**

In view of the above amendment, applicant's representative believes the pending application is in condition for allowance.

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Respectfully submitted,

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